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09/555,548	08/01/2000	ANTONIUS ADRIANUS ARNOLDUS SMITS	702-001034	8364

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RICHARD L BYRNE
436 SEVENTH AVENUE
700 KOPPERS BUILDING
PITTSBURGH, PA 15219-1818

EXAMINER
ROSSI, JESSICA

ART UNIT	PAPER NUMBER
1733	7

DATE MAILED: 01/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-7

Office Action Summary	Application No.	Applicant(s)	
	09/555,548	SMITS, ANTONIUS ADRIANUS ARNOLDUS	
	Examiner	Art Unit	
	Jessica L. Rossi	1733	

-- Th MAILING DATE of this communication appears on the cov r sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-37* is/are pending in the application.

~~4a) Of the above claim(s) 34-36 is/are withdrawn from consideration.~~

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-33 and 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 19-33 and 37, drawn to a device for affixing objects to products.

Group II, claim(s) 34-36, drawn to a method for affixing objects to products.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical feature shared by Groups I and II is the affixing means being capable of rotary movement and being driven intermittently between rotation and standstill wherein the carrier removes an object from the holder during standstill. This common technical feature does not distinguish the claimed invention over the prior art, as evidenced by US 5,102,485 to Keeler et al. (Figure 2; column 1, lines 10-16; column 3, lines 45-62; column 4, lines 26-60). Accordingly, unity of invention between Groups I and II is lacking and restriction is proper.

3. During a telephone conversation with Mr. Richard Byrne on 1/17/02 a provisional election was made with traverse to prosecute the invention of Group I, claims 19-33 and 37. Affirmation of this election must be made by applicant in replying to this Office action. Claims

34-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

4. The disclosure is objected to because of the following informalities:

Page 3, line 16: insert --a-- after "in".

Page 3, line 21: insert --a-- after "in".

Page 7, line 34: delete "take" and insert --taken--.

Page 8, line 1: delete "rotate" in insert --rotates--.

Page 9, line 33: delete "on" and insert --one--.

Page 9, line 38: delete "are" and insert --is--.

Appropriate correction is required.

Claim Objections

5. Claims 19-33 and 37 are objected to because of the following informalities: delete "of" before "affixing" in line 6 of claim 19. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 19-33 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 19, it is unclear what is meant by "with affixing means **further** comprising" since components comprising the affixing means where not mentioned prior to this statement. It is suggested to delete "with" and "further" from this phrase.

Regarding claim 19, it recites the limitation "the moving product" in line 6. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change this to --a moving product--.

Regarding claim 19, it is unclear what is meant by "can be driven intermittently". The use of the word "can" in the characterizing portion of claim 1 introduces ambiguity, such that the features concerning intermittent rotation of the affixing means and carrier are regarded as being optional. Applicants are asked to clarify. It is suggested to change "can be" to --are--.

Regarding claims 29-30, it is unclear what the difference between "driving" and "moving" is. It appears that driving is a form of moving. Therefore, "a driving mechanism for driving the carrier" and "the driving mechanism can move the carrier" means the same thing. Applicants are asked to clarify. It is suggested to delete claim 30.

Claim Rejections - 35 USC § 102/103

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 19-20, 23, and 26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Keeler et al. (US 5102485).

With respect to claim 19, Keeler et al., directed to a device 10 for affixing fitments 20 to carton blanks B moving continuously in a row on conveyor line 24, teaches carrier plate 32 (holder) for holding the fitments and transfer drum 56 (affixing means) comprising transfer station 60 (carrier) for removing one of the fitments from the carrier plate and moving the fitment (Figure 2; column 1, lines 10-16; column 3, lines 45-62; column 4, lines 25-40). The transfer drum is capable of rotary movement about an axis of rotation and affixing the fitment to a moving carton blank during this rotary movement, wherein the transfer drum is driven intermittently between rotation and standstill (column 4, lines 41-60; column 5, lines 21-23 and 31-35; column 6, lines 32-37). The transfer station removes a fitment from the carrier plate during standstill of the transfer drum (column 5, lines 41-45).

It is noted above the examiner interpreted the reference as having the transfer stations participate in removal of the fitments from the carrier plate. However, if it is taken that the transfer stations do not participate in the removal and just receive the fitments once breaking cylinder 38 dislodges them from the carrier plate for release through a discharge slot 40 (column 3, lines 59-62), it would have been obvious to one of ordinary skill in the art at the time the invention was made to activate the vacuum pressure created by the lodgement surfaces 62 of the transfer stations during dislodgement of the fitments to aid in the removal process because the vacuum pressure created by the surface of the transfer station would suck the fitment through the

discharge slot thereby expediting the dislodgement process and ensuring proper alignment of the fitment within its respective transfer station.

Regarding claim 20, the reference teaches the transfer drum including four transfer stations positioned 90° apart in a circle around the axis of rotation such that one of the transfer stations is positioned at the carrier plate during standstill of the transfer drum while station 76, where the fitments are affixed to the carton blanks, is located at a position on the circle located centrally between two transfer stations (Figure 2; column 4, lines 26-29; column 5, lines 10-17).

Regarding claim 23, the reference teaches the transfer drum including one to six transfer stations spaced at intervals of 360, 180, 120, 90, 72, and 60 degrees in a circle around the axis of rotation such that the carrier plate and station 76, where the fitments are affixed to the carton blanks, are positioned in such a manner that one of the transfer stations will be present at the location of the carrier plate during standstill of the transfer drum while another transfer station, which has removed one of the fitments from the carrier plate, will not have affixed the fitment to the carton blank yet (Figures 14-15; column 5, lines 10-17).

Regarding claim 26, the reference teaches control means for temporarily stopping the transfer drum (column 4, lines 51-60).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keeler et al.

Regarding claim 21, Keeler et al. teaches the transfer station having an air pervious lodgement surface 62 (see Figure 2) coupled by passage ways or tubes 64 to a bearing 66 that rotates relative to a central stationary vacuum bore 68 (column 4, lines 26-33). One of ordinary skill in the art would have appreciated that this is a nozzle. Selection of a particular diameter would have been within purview of one of ordinary skill in the art at the time the invention was made.

Regarding claim 25, Keeler et al. is silent as to an electric motor whose rotational speed is controlled on the basis of signals from a pulse generator wherein the signals are a measure of speed of movement of the carton blanks. Selection of a particular mechanism for rotating the transfer drum would have been within purview of one of ordinary skill in the art at the time the invention was made. It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the speed of the transfer drum by detecting the speed of the carton blanks in order to align the transfer stations with the carton blanks for accurate placement of the fitments onto the blanks. Selection of the mechanism for detecting the speed would have been within purview of one of ordinary skill in the art at the time the invention was made.

13. Claims 22 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keeler et al. in view of Voltmer et al. (US 4605459; provided in IDS).

Regarding claim 22, Keeler et al. is silent as to the transfer stations being moveable in a radial direction with respect to the axis of rotation. It is known to affix objects to products using an affixing apparatus capable of rotary motion wherein the apparatus comprises carriers or heads

21 for acquiring and releasing the objects and being moveable in a radial direction with respect to the axis of rotation, as taught by Voltmer et al. (Figures 1-2; column 2, lines 15-19; column 3, lines 17-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use extendable and retractable carriers for the transfer stations of Keeler et al. because such is known in the art, as taught by Voltmer et al., and this would bring the transfer station into direct contact with the fitments in the carrier plate/discharge slot thereby ensuring proper alignment of the fitments within the transfer stations.

Regarding claim 28, Keeler et al. teaches the transfer drum being driven via an indexing mechanism having an output shaft (column 4, line 64 – column 5, line 7) but is silent as to the indexing mechanism having an outgoing shaft that is intermittently stationary and an ingoing shaft that rotates continuously. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have separate shafts driving the transfer drum and transfer stations because such is known in the art, as taught by Voltmer et al. (column 3, lines 27-40), and such would be required to drive the transfer stations while the drum is at a standstill. Arrangement of these shafts and their operating patterns with respect to each other would have been within purview of one of ordinary skill in the art at the time the invention was made depending on the desired operating functions of the apparatus.

Regarding claims 29-30, Keeler et al. is silent as to the ingoing shaft of the index mechanism further driving a driving mechanism for driving the transfer stations during standstill of the transfer drum. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the index mechanism of Keeler et al. also drive the shaft for driving

the transfer station during standstill of the transfer drum to allow for controlled velocity, acceleration, and deceleration of the transferring station (Keeler; column 5, lines 1-7).

Regarding claims 31-33, a particular configuration for the ingoing shaft would have been within normal design practice of the skilled artisan; it being noted that such features are suggested by Voltmer et al. (Figure 2; columns 3-4).

14. Claims 24 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keeler et al. in view of Utsumi (EP 035645; provided in IDS).

Regarding claim 24, Keeler et al. is silent as to applying glue to the fitment engaged by the transfer station. Means for attaching the fitments to the carton blanks would have been within purview of one in the art depending on the materials used for the fitments and blanks. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply glue via a glue dispenser to the fitments of Keeler et al. in the transfer stations because it is known to affix an object to a product using an affixing apparatus wherein the object is affixed to the product using glue, as taught by Utsumi (abstract; page 10, lines 17-20).

Regarding claim 37, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the glue during standstill of the transfer drum of Keeler et al. because this would ensure accurate and uniform application of the glue onto the fitments.

15. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keeler et al. in view of Voltmer et al. (GB 2188608).

Regarding claim 27, Keeler et al. is silent as to control means provided with detection means for detecting a moving product approaching the transfer drum. It is know to affix objects to products using an affixing apparatus wherein control means is provided for sensing an

approaching product, as taught by Voltmer et al. (page 2, lines 63-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use control means associated with the device of Keeler et al. for detecting a moving carton blank approaching the transfer drum to initiate rotation of the drum so that a transfer station engaging a fitment moves into proper alignment with a blank.

16. Claims 19-23, 25-26, and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voltmer et al. ('459) in view of Keeler et al.

With respect to claim 19, Voltmer et al., directed to a device 100 for affixing literature 19 to containers 20 moving in a row on conveyor 104, teaches hopper 32 (holder) for holding the literature and carousel 133 (affixing means) having suction cups 28 for holding the literature to heads 21 (carriers) after its removal from the hopper and transfer to the heads by means of roller 33 (Figure 1; column 2, lines 12-20 and 62-66; column 3, lines 1-65). The carousel is capable of rotary movement about an axis of rotation and affixing the literature to the container during this rotary movement (column 4, lines 12-55). The reference is silent as to the heads/suction cups removing the literature from the hopper, the carousel being driven intermittently between rotation and standstill, and the suction cups removing a piece of literature from the hopper while the carousel is at a standstill.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to actuate the suction cups during removal of the literature from the hopper to aid the roller in removing the literature because this would expedite the removal process and ensure that the literature was properly aligned with the head.

It is known to affix objects to products using an affixing apparatus capable of rotary movement wherein the apparatus is driven intermittently between rotation and standstill so that carriers located on the apparatus can remove objects from a holder during standstill, as taught by Keeler et al. (see paragraph 10 above). It would have been obvious to one of ordinary skill in the art at the time the invention was made to drive the carousel of Voltmer et al. intermittently between rotation and standstill so that the heads can remove literature from the hopper during standstill because such is known in the art, as taught by Keeler et al., and this would allow objects having an awkward shape such as the literature to be successfully removed from the hopper thereby increasing the output of properly assembled products during a fixed time period.

Regarding claim 20, selection of an arrangement for the heads on the carousel would have been within purview of one of ordinary skill in the art at the time the invention was made. However, it is known in the art to include one or more carriers wherein the carriers are positioned a uniform distance apart in a circle around the axis of rotation such that one of the carriers is near the holder during standstill while the place of affixing the object to the product is centrally located between two other carriers, as taught by Keeler et al. (Figure 2; column 4, lines 26-29; column 5, lines 10-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the heads of Voltmer et al. in the manner taught by Keeler et al. because only the expected results would have been achieved.

Regarding claim 21, Voltmer et al. teaches the heads being provided with suction cups or nozzles 28 for engaging the literature (column 3, lines 28-30). Selection of a particular diameter for the suction cups would have been within purview of one of ordinary skill in the art at the time the invention was made.

Regarding claims 22 and 28-33, see paragraph 13.

Regarding claim 23, Voltmer et al. teaches one of the carriers being located at the holder while another carrier has removed an object from the holder but not yet affixed it to the product (Figure 1).

Regarding claim 25, Voltmer et al. is silent as to an electric motor whose rotational speed is controlled on the basis of signals from a pulse generator wherein the signals are a measure of speed of movement of the containers. Selection of a particular mechanism for rotating the carousel would have been within purview of one of ordinary skill in the art at the time the invention was made. It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the speed of the carousel by detecting the speed of the containers in order to align the heads with the containers for accurate placement of the literature onto the containers. Selection of the mechanism for detecting the speed would have been within purview of one of ordinary skill in the art at the time the invention was made.

Regarding claim 26, Keeler et al. teaches control means for temporarily stopping the affixing apparatus (column 4, lines 51-60).

17. Claims 24 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voltmer ('459) and Keeler et al. as applied to claim 19 above, and further in view of Utsumi.

Regarding claims 24 and 37, see paragraph 14.

18. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Voltmer ('459) and Keeler et al. as applied to claim 19 above, and further in view of Voltmer ('608).

Regarding claim 27, see paragraph 15.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 4962634 to Boldrini – teaches apparatus for packing cigarettes wherein wheel 9 (affixing means) comprises carriers 24 having pockets 28 for acquiring blanks 5 at station 19 followed by acquiring packs 3 at station 14 from holder 15 (Figures 1-3); wheel 9 comprises a drum 27 mounted for rotation and each pocket 28 is connected to the drum 27 by three cams 30-32 that allow the pocket to be extended and retracted in the radial direction; the **pocket 28** can be **stopped** for a given length of time at specific points about the axis of drum 27 while **wheel 9 rotates continuously** (column 5, lines 7-15 and 51-56); therefore, the entire apparatus, wheel 9 and pockets 28, are not driven intermittently between rotation and standstill.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **703-305-5419**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jessica L. Rossi
Patent Examiner
Art Unit 1733

jlr
January 25, 2002

Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700